Student Survey of Motivational Attitudes toward Statistics

Title of research study: Developing Validated Instruments to Measure Student/Faculty Attitudes in Undergraduate Statistics and Data Science Education

IRB #: IRB-FY2025-79

Investigator: Michael A. Posner, Professor of Statistics and Data Science, michael.posner@villanova.edu, 610-519-3016

Key Information: This study involves research and is voluntary. You can stop at any time without penalty.

Purpose of the Research: We are gathering data on attitudes toward statistics. We are interested in (1) what these attitudes are, and (2) how attitudes relate to student and instructor characteristics and classroom environment. The following survey asks demographic information and about your attitudes towards statistics. The long term goal of this research is to improve instruction in statistics courses.

Procedures: The entire survey should take about 15 minutes to complete. We request that you complete every item, but you are not required to do so. Participants must be at least 18 years of age. You have been asked to give us your name and email address so that we can link your pre-class survey responses with your post-class survey responses. Your survey responses may be linked with other data collected as a part of this study.

Your instructor may request a list of student names who have completed the survey in order to award credit (as a required assignment or for extra credit). Students who do not consent and stop before completing the survey will still be eligible for this credit and will be included in this list. Your instructor will have access to the complete data for their class, including your name and email address. However, access to this data will not be granted until the course is over.

A dataset that excludes all personal identifying information will be made publicly available for educational researchers. The study investigator may grant access to approved researchers to use identifiable data for validated studies after a Data Use Agreement has been signed.

Risks / Discomforts: This study is educational research and does not have any known associated risks.

Benefits to Prospective Subjects and/or to Others: By filling out this attitudes survey, you may be better able to identify your feelings toward statistics. Your responses may also aid your instructor and statistics education researchers in improving instruction in statistics courses. For Villanova-specific resources and other mental health resources, visit the Villanova IRB website. To view these online, navigate to irb.villanova.edu and click “Participating in a Research Study.” As a participant in research, you have rights. Visit the Villanova IRB website to read the

Participant Bill of Rights. To read online, navigate to irb.villanova.edu and click “Participating in a Research Study.”

Consent will be given through clicking “I accept” on Qualtrics surveys, by selecting one of the following options: I have read and understand the terms and conditions of this research study and agree to participate. I understand my participation is voluntary and that I may withdraw at any time without penalty. By clicking "yes" I am indicating my permission to participate in this study.

- ○ Yes: I agree to participate AND am 18 years or older (1)
- ○ No: I do not agree to participate, OR I am under 18 years old (0)